PROJECT NUMBER : 6912
PROJECT TITLE : Tobacco/Smoke Relationships
PROJECT LEADER : R. R. Izac
PERIOD COVERED : February, 1991

I. CROSS SOLUBLES BASE WEB (CHEMISTRY)

A. **Objective:** To modify tobacco solubles and evaluate the smoke chemistry of fillers from various treated solubles and the appropriate base web.

B. **Results:** In a study to evaluate different starting materials, burley CEL and burley S1 (BuS1) were treated with an ion exchange resin (AG50w-X). Model cigarettes from the batch treatments would not burn and samples of the filler were ground and submitted to ARD.

The soaking versus spraying study was repeated. The treated fillers were made into cigarettes and smoked. Cigarette smoke data showed that there were no differences in CSC the yields. Sample fillers were submitted to ARD and CSCs were submitted for S/M testing.

Testing continued with the new electrodialysis unit. The dialysis cell was repacked and modifications to the unit were made. Three tests to denitrate BuS1 have been conducted using a 10 (twice) and 15 DC volt setting. Nitrate test strips indicated that denitrification occurred at about 15 minutes at 15 DC volts.

BuS1 and BuI1 were separately treated with cellulase at 40°C for 19 hours. The samples were centrifuged and the supernatant is being freeze dried in preparation for application to base web.

C. **Plans:** Continue to generate model fillers from various CSBW studies. Submit IT CSC from various studies for S/M testing.

D. **References:**

1. Drew S. Notebook No. 8950, pp.93-95 and Notebook No. 9057, pp. 1-25, 29.

2. Zoller, M. Notebook No. 9005, pp. 94-100 and Notebook No. 9045, pp. 1-15.

3. Hassam, S. Notebook No. 8823, pp. 95-103.

II. SUPPORT FUNCTION: SAMPLE PREPARATION

A. **Objective:** To prepare chemical fractions and/or condensates as needed for biological and chemical analysis.

B. **Results:** A sample of tobacco hornworm purge fluid was separated using a 5 kD hollow fiber membrane. Both the concentrate and the filtrate were freeze dried and are to be tested by Project 1101 personnel.

2022017747

Source: https://www.industrydocuments.ucsf.edu/docs/szjm0000

Triplicate smokings of 2R1 cigarettes collected on Cambridge filters, in impaction traps, in impaction traps followed by processing and in Elmenhorst cold traps (-78°C) followed by processing are being collected for varied chemical analysis.

Hand made cigarettes (182) were prepared for Project 6908.

About 450 samples from various sources were assayed for nicotine.

C. References:

1. Izac, R. R. Notebook No. 8874, p. 90.

2. Hellams, R. Notebook No. 8959.

3. McGee, N. Notebook No. 9016, pp. 53-69.

2022201748

Source: https://www.industrydocuments.ucsf.edu/docs/szjm0000